

The following remarks are submitted in response to the Notice of Informal/Non-Responsive Response mailed February 17, 1998 in the above-identified application.

Remarks

Claims 1-20 are pending in the application, claims 16, 17, 18, 19 and 20 having been added in this response. Support for claims 16-20 may be found in the Specification, for example on pages 6-12.

The issues raised by the Examiner in the Notice of Informal/Non-Responsive Response are addressed in the following paragraphs.

The Specification

Applicants have amended the Specification to correct the page numbering problem. To the extent that the foregoing amendments are unclear, the Examiner is respectfully requested to refer to the copy of the Specification submitted on November 26, 1997 in which the pages are correctly numbered.

Election

Applicants respectfully traverse the Examiner position that Applicants' election of scandium as a single ultimate species is non-responsive. In their election Applicants specifically recited "processes for selectively extracting scandium metal values" in response to Applicants understanding of the restriction requirement dated May 28, 1997.

Nevertheless, in order to expedite prosecution of the application, Applicants hereby elect the following method (process) species for further prosecution in the application:

A process for selectively extracting a scandium metal value from a source material comprising:

reacting the source material with a first mineral acid for a period of time, and under temperature and pressure conditions sufficient to generate a reacted material comprising

scandium metal values and liberate a portion of any fluorine metal values present in the source material;

leaching the reacted material in a second mineral acid to generate an aqueous solution comprising scandium metal values;

contacting said aqueous solution with an organic medium which includes a diluent and an extractant, said diluent being immiscible with said aqueous solution thereby producing an organic phase comprising scandium metal values and a raffinate at least partially depleted in scandium metal values;

contacting said organic phase with a scandium stripping agent to form a scandium phase comprising at least a portion of the scandium metal values present in said organic phase; an additional aqueous phase comprising said scandium stripping agent; and a final organic phase at least partially depleted in scandium metal values. and a solid phase at least partially depleted in scandium metal values; and

recovering scandium metal values from said scandium phase;

wherein:

the source material comprises an ore residue which includes scandium metal values;

the first mineral acid comprises sulfuric acid;

the second mineral acid comprises sulfuric acid;

the organic medium comprises DEPHA (Di 2-ethylhexylphosphoric acid) as an extractant and an aliphatic non-soluble C₉-C₁₆ hydrocarbon as a diluent; and

the scandium stripping agent comprises sodium hydroxide.

In view of the foregoing elected species, Applicants respectfully submit that claims 10-19 are generic and claim 20 is readable on the elected species.

If the foregoing election is also viewed as non-responsive, Applicants respectfully request that the Examiner contact the undersigned attorney of record to further discuss the election of species.

Conclusion

Applicants respectfully submit that the foregoing remarks and amendments overcome the issues raised in the Notice of Informal/Non-Responsive Response.

The Examiner is respectfully invited to contact the undersigned at 336.607.7315, or Martha A. Finnegan at 978.670.6198 to discuss any matter relating to the present application.

Respectfully submitted,



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